

arranged on another edge of the housing,

*A5*  
wherein an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor.--

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REMARKS

*Summary of the Amendment*

Upon entry of the above amendment, the specification will have been amended, claims 36, 37, 39 and 45-47 will have been canceled, claims 1-4, 8, 9, 15, 27, 29, 31, 32, 38, 40, 41, 43 and 44 will have been amended, and claims 48-50 will have been added. Accordingly, claims 1-35, 38, 40-44 and 48-50 will be pending, with claims 1 and 48-50 being independent.

*Summary of the Official Action*

In the instant Office Action, the Examiner objected to the list of reference characters on page 13 of the specification because certain listed numbers are not shown or described in the specification. The Examiner also objected to the drawings because certain recited features are not shown therein. Finally, the Examiner rejected claims 1-47 over the art of record. By the present amendment and remarks, Applicant submits that the rejections have been overcome, and respectfully request reconsideration of the outstanding Office Action and

allowance of the present application.

***Support for claim amendments***

Applicant has amended independent claim 1 to recite features which are clearly described in, e.g., paragraph [0008] and/or the canceled claims, of the instant application.

***Objection to the Specification is moot***

Applicant submits that the Examiner's objection to the specification is moot because the specification has been amended to resolve the asserted informalities. In particular, Applicant has amended the list of reference characters to remove reference to numbers 34-44. Accordingly, Applicant submits that the specification is fully in compliance with current USPTO rules.

In view of the above, Applicant requests that the Examiner reconsider and withdraw the objection to the specification.

***Objection to the Drawings is moot***

Applicant submits that the Examiner's objection to the drawings is moot because the claims have been amended in a manner which is clearly shown in the drawings.

In view of the above, Applicant requests that the Examiner reconsider and withdraw

the objection to the drawings and indicate that the drawings as proposed to be amended are acceptable under the Patent Office Rules.

***Traversal of Rejection Under 35 U.S.C. § 102***

**Over Meschenmoser**

Applicant traverses the rejection of claims 1-3, 15, 17-19, 22-24, 27 and 28 under 35 U.S.C. § 102(b) as being anticipated by US patent 5,879,514 to MESCHENMOSER.

The Examiner asserted that this document, and especially Fig. 5, discloses all the features recited in these claims. Applicant respectfully traverses this rejection.

Applicant submits that the rejection is improper because this document does not disclose all the recited features of the above-noted claims, and in particular, at least independent claim 1 as amended herein.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, *inter alia*, at least two doctors assigned to a rotating roll wherein the rotating roll comprises *grooves and/or blind bores*, one of the at least two doctors being a front doctor that *scrapes water off of the rotating roll* and another of the at least two doctors being a rear doctor that *scrapes air off of the rotating roll*, wherein *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*, as recited in amended claim 1.

Applicant acknowledges that Fig. 5 of MESCHENMOSER apparently shows a roll 36 with two doctors, i.e., ref. 60 and 92, assigned thereto. However, this document contains no apparent disclosure with regard to the roll 36 having grooves and/or blind bores. Nor is there any disclosure regarding the front doctor 60 *scraping water off of the rotating roll 36* and regarding the rear doctor 92 *scraping air off of the rotating roll 36*. Finally, this document fails to disclose that *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*.

Thus, Applicant submits that at least independent claim 1 is not disclosed by any proper reading of MESCHENMOSER.

Applicant notes that, for an anticipation rejection under 35 U.S.C. § 102(b) to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because this document fails to disclose at least the above mentioned features as recited in independent claim 1, Applicant submits that this document does not disclose all the claimed features recited in at least independent claim 1.

Moreover, dependent claims 2, 3, 15, 17-19, 22-24, 27 and 28 are allowable at least for the reason that these claims each depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of MESCHENMOSER discloses or suggests, in

combination: that said at least two doctors are located before a take-on point at which at least one felt is guided onto the rotating roll as recited in claim 2; that the device further comprises a boundary layer doctor positioned adjacent said at least one felt before the take-on point as recited in claim 3; that the device further comprises at least one cleaning device acting on a surface of the rotating roll as recited in claim 15; that said at least one cleaning device comprises at least one jet cleaning or spray device arranged to direct a pressurized medium at said surface as recited in claim 17; that said pressurized medium comprises a fluid or air as recited in claim 18; that said fluid comprises water as recited in claim 19; that said at least one cleaning device emits a medium onto said surface under a pressure that is greater than approximately 20 bar as recited in claim 22; that said medium is under pressure less than about 30 bar as recited in claim 23; that said medium is under pressure less than about 25 bar as recited in claim 24; that the device further comprises a housing which is open to the rotating roll, wherein said at least one cleaning device is enclosed and/or surrounded by said housing as recited in claim 27; and that said housing is sealed off from said surface by said at least two doctors as recited in claim 28.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection and further requests that the above-noted claims be indicated as allowable.

Over Garcia Pastor

Applicant traverses the rejection of claims 1, 15, 16, 27 and 28 under 35 U.S.C. § 102(b) as being anticipated by US patent 5,139,618 to GARCIA PASTOR et al.

The Examiner asserted that this document discloses all the features recited in these claims including a roll and two or more doctors. Applicant respectfully traverses this rejection.

Applicant submits that the rejection is improper because this document does not disclose all the recited features of the above-noted claims, and in particular, at least independent claim 1 as amended herein.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, *inter alia*, at least two doctors assigned to a rotating roll wherein the rotating roll comprising *grooves and/or blind bores*, one of the at least two doctors being a front doctor that *scrapes water off of the rotating roll* and another of the at least two doctors being a rear doctor that *scrapes air off of the rotating roll*, wherein *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*, as recited in amended claim 1.

Applicant acknowledges that Figs. 4-6 of GARCIA PASTOR apparently shows a roll 3 with two or more doctors, i.e., ref. 1 and 2, assigned thereto. However, this document contains no apparent disclosure with regard to the roll 3 having grooves and/or blind bores.

Nor is there any disclosure regarding a front doctor *scraping water off of the rotating roll 3* and regarding a rear doctor *scraping air off of the rotating roll 3*. Finally, this document fails to disclose that *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*.

Thus, Applicant submits that at least independent claim 1 is not disclosed by any proper reading of GARCIA PASTOR.

Applicant notes that, for an anticipation rejection under 35 U.S.C. § 102(b) to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because this document fails to disclose at least the above mentioned features as recited in independent claim 1, Applicant submits that this document does not disclose all the claimed features recited in at least independent claim 1.

Moreover, dependent claims 15, 16, 27 and 28 are allowable at least for the reason that these claims each depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of GARCIA PASTOR discloses or suggests, in combination: that the device further comprises at least one cleaning device acting on a surface of the rotating roll as recited in claim 15; that said at least one cleaning device is positioned between said at least two doctors as recited in claim 16; that the device further comprises a housing which is open

to the rotating roll, wherein said at least one cleaning device is enclosed and/or surrounded by said housing as recited in claim 27; and that said housing is sealed off from said surface by said at least two doctors as recited in claim 28.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection and further requests that the above-noted claims be indicated as allowable.

***Traversal of Rejection Under 35 U.S.C. § 102/103***

Applicant traverses the rejection of claims 1, 2, 8 and 15-28 under 35 U.S.C. § 102(b) as being anticipated or in the alternative, under 35 U.S.C. § 103(a) as obvious over US patent 5,964,960 to BOECK.

The Examiner asserted that this document discloses or suggests all the features recited in these claims. Applicant respectfully traverses this rejection.

Applicant submits that the rejection is improper because this document does not disclose all the recited features of the above-noted claims, and in particular, at least independent claim 1 as amended herein.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose or even suggest, inter alia, at least two doctors assigned to a rotating roll wherein the rotating roll comprising *grooves and/or blind bores*, one of the at least two doctors being a front doctor that *scrapes water off of the*

*rotating roll* and another of the at least two doctors being a rear doctor that *scrapes air off of the rotating roll*, wherein *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*, as recited in amended claim 1.

Applicant acknowledges that Fig 5 of BOECK apparently shows a roll 24 with two doctors, i.e., ref. 82 and 84, assigned thereto. However, this document contains no apparent disclosure with regard to the roll 24 having grooves and/or blind bores. To the contrary, col. 6, lines 52-53 explains that roll 24 is a “smooth central roll.” Nor is there any disclosure regarding the front doctor 82 *scraping water off of the rotating roll 24* and regarding the rear doctor 84 *scraping air off of the rotating roll 24*. Finally, this document fails to disclose that *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*.

Thus, Applicant submits that at least independent claim 1 is not disclosed by any proper reading of BOECK.

Applicant notes that, for an anticipation rejection under 35 U.S.C. § 102(b) to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because each of the applied documents fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that any proper combination of these documents fails to render unpatentable the combination of features recited in at least

independent claim 1.

Further, even assuming, *arguendo*, that it would have been obvious to modify BOECK to include the missing features, (which Applicant submits it would not be), Applicant notes that the combination of the teachings of this document would nevertheless fail to result in a device in which at least two doctors assigned to a rotating roll wherein the rotating roll comprising *grooves and/or blind bores*, one of the at least two doctors being a front doctor that *scrapes water off of the rotating roll* and another of the at least two doctors being a rear doctor that *scrapes air off of the rotating roll*, wherein *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*, as recited in amended claim 1. Moreover, Applicant submits that there is no motivation to modify BOECK in a manner which would render obvious Applicant's invention.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify BOECK in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify this document in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection and interpretation of BOECK.

Moreover, dependent claims 2, 8 and 15-28 are allowable at least for the reason that these claims each depend from an allowable base claim and because these claims recite

additional features that further define the present invention. In particular, Applicant submits that no proper reading of BOECK discloses or suggests, in combination: that said at least two doctors are located before a take-on point at which at least one felt is guided onto the rotating roll as recited in claim 2; that the device further comprises a press arranged before the rotating roll and a low pressure suction device arranged for suctioning a space between said press and the rotating roll as recited in claim 8; that the device further comprises at least one cleaning device acting on a surface of the rotating roll as recited in claim 15; that said at least one cleaning device is positioned between said at least two doctors as recited in claim 16; that said at least one cleaning device comprises at least one jet cleaning or spray device arranged to direct a pressurized medium at said surface as recited in claim 17; that said pressurized medium comprises a fluid or air as recited in claim 18; that said fluid comprises water as recited in claim 19; that said at least one cleaning device comprises a combined blowing or spraying device and suction device as recited in claim 20; that said at least one cleaning device comprises at least one rotatable spray head arranged to traverse crosswise to the travel direction and arranged to rotate around an axis as recited in claim 21; that said at least one cleaning device emits a medium onto said surface under a pressure that is greater than approximately 20 bar as recited in claim 22; that said medium is under pressure less than about 30 bar as recited in claim 23; that said medium is under pressure less than about 25 bar as recited in claim 24; that said at least one cleaning device comprises a spray head which

is rotatable around an axis, said spray head including at least one nozzle which is inclined relative to said axis as recited in claim 25; that the device further comprises a vapor suctioning device, wherein said spray head is assigned to said vapor suctioning device as recited in claim 26; that the device further comprises a housing which is open to the rotating roll, wherein said at least one cleaning device is enclosed and/or surrounded by said housing as recited in claim 27; and that said housing is sealed off from said surface by said at least two doctors as recited in claim 28.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection and further request that the above-noted claims be indicated as allowable.

*Traversal of Rejections Under 35 U.S.C. § 103(a)*

Applicant traverses the rejection of claims 1-28 under 35 U.S.C. § 103(a) as being unpatentable over MESCHENMOSER.

Applicant also traverses the rejection of claims 29-47 under 35 U.S.C. § 103(a) as being unpatentable over MESCHENMOSER, GARCIA PASTOR or BOECK in view of U.S. Patent 3,198,694 to JUSTUS and/or U.S. Patent 3,198,697 to JUSTUS.

Applicant additionally traverses the rejection of claims 9-14 under 35 U.S.C. § 103(a) as being unpatentable over MESCHENMOSER, GARCIA PASTOR or BOECK in view of U.S. Patent 3,268,390 to ELY, SR.

The Examiner asserts that MESCHENMOSER teaches all the recited features except for the recited distances, pressures, the recited cleaning devices, and the grooved or blind bored surface and a suction guide roll following a press nip. However, the Examiner asserted that the distances, pressures, the recited cleaning devices are *prima facie* obvious, that the JUSTUS documents teach the use of scrapers to clean grooves or blind bored surfaces, and that ELY SR teaches the suction guide roll following a press nip. Finally, the Examiner concluded that it would have been obvious to one skilled in the art to modify MESCHENMOSER, GARCIA PASTOR or BOECK to include the missing features. Applicant respectfully traverses these rejections.

Furthermore, notwithstanding the Office Action assertions as to what each of these documents discloses, Applicant submits that no combination of these documents discloses or suggests, *inter alia*, at least two doctors assigned to a rotating roll wherein the rotating roll comprising *grooves and/or blind bores*, one of the at least two doctors being a front doctor that *scrapes water off of the rotating roll* and another of the at least two doctors being a rear doctor that *scrapes air off of the rotating roll*, wherein *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*, as recited in amended claim 1.

As discussed above, Applicant acknowledges that Fig 5 of MESCHENMOSER apparently shows a roll 36 with two doctors, i.e., ref. 60 and 92, assigned thereto. However,

this document contains no apparent disclosure with regard to the roll 36 having grooves and/or blind bores. Nor is there any disclosure regarding the front doctor 60 *scraping water off of the rotating roll 36* and regarding the rear doctor 92 *scraping air off of the rotating roll 36*. Finally, this document fails to disclose that *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*.

Again, Applicant does not dispute that Figs. 4-6 of GARCIA PASTOR apparently show a roll 3 with two or more doctors, i.e., ref. 1 and 2, assigned thereto. However, this document contains no apparent disclosure with regard to the roll 3 having grooves and/or blind bores. Nor is there any disclosure regarding a front doctor *scraping water off of the rotating roll 3* and regarding a rear doctor *scraping air off of the rotating roll 3*. Finally, this document fails to disclose that *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*.

Additionally, Applicant acknowledges that Fig 5 of BOECK apparently shows a roll 24 with two doctors, i.e., ref. 82 and 84, assigned thereto. However, this document contains no apparent disclosure with regard to the roll 24 having grooves and/or blind bores. To the contrary, col. 6, lines 52-53 explains that roll 24 is a “smooth central roll.” Nor is there any disclosure regarding the front doctor 82 *scraping water off of the rotating roll 24* and regarding the rear doctor 84 *scraping air off of the rotating roll 24*. Finally, this document fails to disclose that *an underpressure is hydrodynamically produced by at least one of the*

*front doctor and the rear doctor.*

Next, Applicant notes that the JUSTUS documents apparently disclose grooved rolls with a doctor, i.e., ref. 13e of JUSTUS '694 and refs. 29, 136, 136a and 137 of JUSTUS '697, assigned thereto. However, these documents contain no apparent disclosure with regard to a front doctor that *scrapes water off of the rotating roll* and regarding a rear doctor that *scrapes air off of the rotating roll*. Finally, these documents fail to disclose or suggest that *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor.*

Finally, Applicant does not dispute that ELY SR apparently discloses a suction roll 57 that follows a press nip and a doctor associated with a roll 41 (see Fig. 2). However, this document contains no apparent disclosure with regard to a roll having grooves and/or blind bores. Nor is there any disclosure regarding a front doctor *scraping water off of the rotating roll* and regarding a rear doctor *scraping air off of the rotating roll*. Finally, this document fails to disclose or suggest that *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor.*

Because each of the applied documents fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that any proper combination of these documents fails to render unpatentable the combination of features recited in at least independent claim 1.

Further, even assuming, *arguendo*, that it would have been obvious to modify MESCHENMOSER, GARCIA PASTOR or BOECK to include the features of the secondary references, (which Applicant submits it would not be), Applicant notes that the combination of the teachings of these documents would nevertheless fail to result in a device in which at least two doctors assigned to a rotating roll wherein the rotating roll comprises *grooves and/or blind bores*, one of the at least two doctors being a front doctor that *scrapes water off of the rotating roll* and another of the at least two doctors being a rear doctor that *scrapes air off of the rotating roll*, and wherein *an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor*, as recited in amended claim 1. Moreover, Applicant submits that there is no motivation to modify each of these documents in a manner which would render obvious Applicant's invention.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify the applied references in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify any of these documents, or their combination, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection and interpretation of the disclosure of the applied references.

Finally, Applicant submits that the rejection of claims 36, 37, 39 and 45-47 is moot

since these claims have been canceled. Additionally, Applicant submits that claims 1-35, 38 and 40-44 are allowable at least for the reason that these claims each depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of the applied documents discloses or suggests, in combination: that said at least two doctors are located before a take-on point at which at least one felt is guided onto the rotating roll as recited in claim 2; that the device further comprises a boundary layer doctor positioned adjacent said at least one felt before the take-on point as recited in claim 3; that the device further comprises a low-pressure suction device arranged for suctioning a wedge-shaped opening formed at least by the rotating roll and said at least one felt as recited in claim 4; that a distance between said boundary layer doctor and the take-on point is less than approximately 500 mm as recited in claim 5; that said distance is less than about 400 mm as recited in claim 6; that said distance is less than approximately 300 mm as recited in claim 7; that the device further comprises a press arranged before the rotating roll and a low pressure suction device arranged for suctioning a space between said press and the rotating roll as recited in claim 8; that the rotating roll comprises a suction felt guidance roll as recited in claim 9; that the device further comprises a first press of a pressing section of a paper machine, wherein said suction felt guidance roll is provided subsequently to said first press as recited in claim 10; that said first press comprises a roll press as recited in claim 11; that

said first press comprises an extended nip press as recited in claim 12; that the device further comprises a spray guard positioned between said suction felt guidance roll and said first press as recited in claim 13; that said spray guard is arranged to extend substantially across a width of the machine as recited in claim 14; that the device further comprises at least one cleaning device acting on a surface of the rotating roll as recited in claim 15; that said at least one cleaning device is positioned between said at least two doctors as recited in claim 16; that said at least one cleaning device comprises at least one jet cleaning or spray device arranged to direct a pressurized medium at said surface as recited in claim 17; that said pressurized medium comprises a fluid or air as recited in claim 18; that said fluid comprises water as recited in claim 19; that said at least one cleaning device comprises a combined blowing or spraying device and suction device as recited in claim 20; that said at least one cleaning device comprises at least one rotatable spray head arranged to traverse crosswise to the travel direction and arranged to rotate around an axis as recited in claim 21; that said at least one cleaning device emits a medium onto said surface under a pressure that is greater than approximately 20 bar as recited in claim 22; that said medium is under pressure less than about 30 bar as recited in claim 23; that said medium is under pressure less than about 25 bar as recited in claim 24; that said at least one cleaning device comprises a spray head which is rotatable around an axis, said spray head including at least one nozzle which is inclined relative to said axis as recited in claim 25; that the device further comprises a vapor

suctioning device, wherein said spray head is assigned to said vapor suctioning device as recited in claim 26; that the device further comprises a housing which is open to the rotating roll, wherein said at least one cleaning device is enclosed and/or surrounded by said housing as recited in claim 27; that said housing is sealed off from said surface by said at least two doctors as recited in claim 28; that the rotating roll is arranged to form a pressing nip, and said device further comprises a unit for evening out an amount of water supplied to said pressing nip as recited in claim 29; that said evening out unit comprises one of said at least two doctors as recited in claim 30; that the one doctor is the front doctor, the front doctor being arranged in front of the rear doctor relative to the travel direction as recited in claim 31; that said evening out unit comprises a blowing device for blowing out the grooves and/or the blind bores in said surface with a pressurized medium as recited in claim 32; that said pressurized medium is pressurized air as recited in claim 33; that said evening out unit includes a suction device for suctioning water out of said surface as recited in claim 34; that said evening out unit includes a combined blowing and suction device as recited in claim 37; that at least one of the front and rear doctors comprises a foil doctor arranged diagonally as recited in claim 39; that the fibrous material web comprises a paper or a cardboard web as recited in claim 40; that the device further comprises a blowing device for blowing out the grooves and/or the blind bores with a pressurized medium as recited in claim 41; that said pressurized medium comprises pressurized air as recited in claim 42; that the device further

comprises a suction device for suctioning water out of the grooves and/or the blind bores as recited in claim 43; and that the device further comprises a combined blowing and suction device as recited in claim 44.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the rejections of these claims under 35 U.S.C. § 103(a) and indicate that these claims are allowable.

***New Claims are also Allowable***

Applicant submits that the new claims are also allowable over the applied art of record. In particular, Applicant submits that claims 48-50 recite a combination of features which are not disclosed or suggested by the applied art of record.

Accordingly, Applicant respectfully requests consideration of these claims and further request that the above-noted claims be indicated as allowable.

**CONCLUSION**

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious Applicant's invention, as recited in each of claims 1-35, 38, 40-44 and 48-50. The applied references of record have been discussed and distinguished, while significant claimed features of the

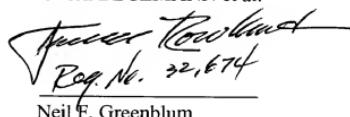
present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

The U.S. Patent and Trademark Office is hereby authorized to charge any necessary fees in connection therewith or any fees necessary for entry of the instant Amendment to deposit account No. 19-0089.

Respectfully submitted,  
Ulrich BEGEMANN et al.



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Appendices 1-2

APPENDIX 1

*Changes to the "LIST OF REFERENCE CHARACTERS" section of the specification  
(on pages 13 and 14 of the specification):*

LIST OF REFERENCE CHARACTERS

- 10 Device for conditioning, cleaning, and/or keeping clean
- 12 Felt suction roll
- 14 Opposing roll
- 16 Doctor
- 18 Doctor
- 20 First press
- 22 Felt approach point
- 24 Felt
- 26 Boundary layer doctor
- 28 Lower roll
- 30 Seating stand with a spray guard running the width of the machine
- 32 Water stripping edges
- [34 Support plate]
- [36 Region]
- [38 Tube, rod]
- [40 Tube, rod]
- [42 Rubber covering]
- [44 Frame]
- 46 Shoe press unit
- 48 Shoe press

- 50 Cleaning device, water removal device
- 52 Axis
- 54 Spray head
- 56 Nozzle
- 58 Nozzle jet
- 60 Roll and/or belt surface
- 62 Groove, blind bore
- 64 Vapor suctioning device
- 66 Housing, enclosure
- 68 Rear wall, rubber blanket
- 70 Groove
- 72 Opening
- 74 Lower boundary
- 76 Pressing nip
- 78 Low-pressure suction

F Arrow

L Roll and/or belt travel direction

ML Machine operating direction

a Distance

## APPENDIX 2

*Changes to claims 1-4, 8, 9, 15, 27, 29, 31, 32, 38, 40, 41, 43 and 44 as follows:*

1. (Amended) A device for conditioning, cleaning, and/or keeping clean at least one of a rotating roll and a circulating belt of a paper machine, comprising:

at least two doctors arranged behind one another in a roll and/or belt travel direction and spaced at a distance from one another[.];

[wherein] said at least two doctors [are] being assigned to [the at least one of the] a rotating roll [and the circulating belt];

the rotating roll comprising grooves and/or blind bores;

one of the at least two doctors being a front doctor that scrapes water off of the rotating roll;

another of the at least two doctors being a rear doctor that scrapes air off of the rotating roll,

wherein an underpressure is hydrodynamically produced by at least one of the front doctor and the rear doctor.

2. (Amended) The device in accordance with claim 1, wherein said at least two doctors are located before a take-on point at which at least one felt is guided onto the [at least one of the] rotating roll [and the belt].

3. (Amended) The device in accordance with claim 2, further comprising a boundary layer doctor positioned adjacent said at least one felt before the take-on point[,

wherein a rear doctor of said at least two doctors, when viewed in the travel direction, is connected to said boundary layer doctor].

4. (Amended) The device in accordance with claim 3, further comprising a low-pressure suction device arranged for suctioning a wedge-shaped opening formed at least by the [at least one of the] rotating roll and [the belt,] said at least one felt[, said rear doctor, and said boundary layer doctor].

8. (Amended) The device in accordance with claim 1, further comprising:  
a press arranged before the [at least one of the] rotating roll [and the belt]; and  
a low pressure suction device arranged for suctioning a space between said press and  
the [at least one of the] rotating roll [and the belt].

9. (Amended) The device in accordance with claim 1, wherein the [at least one of the] rotating roll [and the belt] comprises a suction felt guidance roll.

15. (Amended) The device in accordance with claim 1, further comprising at least one cleaning device acting on a surface of the [at least one of the] rotating roll [and the belt].

27. (Amended) The device in accordance with claim 15, further comprising a housing which is open to the [at least one of the] rotating roll [and the belt],  
wherein said at least one cleaning device is enclosed and/or surrounded by said housing.

29. (Amended) The device in accordance with claim 1, wherein the [at least one of the] rotating roll [and the belt comprises a grooved and/or blind bored surface, and] is arranged to form a pressing nip, and said device further comprises a unit for evening out an amount of water supplied to said pressing nip.

31. (Amended) The device in accordance with claim 30, wherein [in] the one doctor is the [first of the at least two doctors in] front doctor, the front doctor being arranged in front of the rear doctor relative to the travel direction.

32. (Amended) The device in accordance with claim 29, wherein said evening out unit comprises a blowing device for blowing out the grooves and/or the blind bores in said surface with a pressurized medium.

38. (Amended) The device in accordance with claim [37] 1, wherein [said] at least one of the front and rear doctors [doctor] comprises a foil doctor arranged diagonally.

41. (Amended) The device in accordance with claim [39] 40, [wherein said water removal unit includes] further comprising a blowing device for blowing out the grooves and/or the blind bores [of said surface] with a pressurized medium.

43. (Amended) The device in accordance with claim [39] 40, [wherein said water removal unit includes] further comprising a suction device for suctioning water out of [said surface] the grooves and/or the blind bores.

44. (Amended) The device in accordance with claim [39] 40, [wherein said water removal unit includes] further comprising a combined blowing and suction device.